

AMENDMENT TO THE CLAIMS

Claim 1 (currently amended)

A method of nondestructive structural integrity monitoring of a subject, said method only uses information obtained through at least one mounted sensor that measures physical properties of said subject, wherein information from at least one sensor[[(s)]] is analyzed by computing means to determine presence of priorly defined characteristics specific to the subject, wherein said priorly defined characteristics are either computed by said computing means at some early time frame or preset or both, and said method does not use any actuators that might send energetic signals to probe said subject, and results produced by said computing means ~~of said method~~ do not rely on successful acquisition of ~~acoustic emission or other short term unrepeatable events originated by~~ materials composing said subject; the results are logical interpretation of progression of said characteristics.

Claim 2 (previously presented)

A digital processing apparatus implementing the method of claim 1 and at least one passive sensor providing measurements to said processing apparatus .

Claim 3 (currently amended)

A component or an assembly that has the apparatus of claim 2 built-in.

Claim 4 (currently amended)

An assembly containing more than one object of claim 3, where[[]]in the apparatuses of these objects are linked to form a single network or multiple networks.

Claim 5 (currently amended)

[[A]]The method of claim 1 that provides data that is employed to report unusual usage events or usage patterns.

Claim 6 (previously presented)

An implementation of the method of claim 1 that utilizes public informational and/or signal networks to transmit and/or receive information to/from a remote location.

Claim 7 (previously presented)

An object that utilizes the method of claim 1 to forecast recommended time of own replacement.

Claim 8 (canceled)

Claim 9 (currently amended)

An implementation of the method of claim 1 where[[]]in a single physical node is used to process data from multiple independent subjects.

Claim 10 (previously presented)

The apparatus of claim 2 that uses an autonomous energy source.

Claim 11 (previously presented)

The apparatus of claim 4 that uses a network as an energy source.